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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Preparation for International
Telecommunication Union World
Radiocommunication Conferences

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IC Docket No. 94-31

To: The Commission

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JUL 15 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF TELEDESIC CORPORATION

TELEDESIC CORPORATION

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July 15, 1994

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List A B C D E

TABLE OF CONTENTS

Summary	ii
I. Introduction	3
II. Radio Regulation 2613 Should Be Revised or Eliminated so that Non-Geostationary Satellite Systems Receive Equal Priority with Geostationary Satellite Systems	4
III. The United States Should Act to Preserve Sufficient Ka Band Spectrum for FSS Non-Geostationary Satellite Systems	9
IV. The United States Should Support the Consideration of Recommendation 719 (WRC-92) at WRC-97 because it Includes Issues Critical to the Future Success of Non- Geostationary and Geostationary Satellite Networks Utilizing Multiple Bands and Multiple Services	13
V. Conclusion	17

SUMMARY

Teledesic Corporation urges the United States and the Federal Communications Commission to advocate positions at the 1995 World Radiocommunication Conference ("WRC-95") designed to create an impartial and inclusive regulatory environment for both non-geostationary and geostationary satellite systems providing fixed satellite service ("FSS") or mobile satellite service ("MSS").

First, the United States should advocate the modification or elimination of international Radio Regulation 2613 ("Rad. Reg. 2613") so that all non-geostationary satellite systems in the FSS receive equal priority with geostationary satellite systems. The current regulation inequitably requires non-geostationary FSS systems to cease or reduce their transmissions in order to protect geostationary FSS satellite systems, even where the non-geostationary system preceded the geostationary system. This policy is unjustified because the success of the two kinds of satellite systems should depend on technological factors rather than protective regulation. Moreover, various proposals intended to diminish the negative effect of Rad. Reg. 2613 on non-geostationary satellite systems are unacceptable because they do not override the basic priority afforded to geostationary systems.

Second, the United States should act to preserve sufficient Ka band spectrum for non-geostationary FSS systems. At WRC-95, the United States should object to any efforts to make extensive

use of the Ka band for the feeder links of non-geostationary MSS systems. Extensive use of Ka band spectrum for MSS feeder links would be wasteful and inefficient because paired FSS downlink allocations in the 17.7 - 20.2 GHz band would become unusable. In addition, the Ka band lacks sufficient spectrum to accommodate its extensive use for MSS feeder links. Although two non-geostationary MSS systems have proposed to use the band for their systems' feeder links, the placement of additional MSS feeder links there adversely would affect systems already proposed or authorized in the band because of a potential spectrum shortage.

Third, the United States should advocate the inclusion of Recommendation 719 (WRC-92) on the agenda for the 1997 World Radiocommunication Conference because it includes issues critical to the future success of non-geostationary systems providing MSS and FSS. Specifically, the recommendation's terms encompass the need to include non-geostationary systems within any technical studies or deliberations regarding the compatibility of FSS and MSS systems, the need to adopt a single service definition for FSS and MSS, and the need to allocate additional spectrum to MSS and FSS. Each of these issues must be addressed because non-geostationary satellite systems are becoming more pervasive, the distinction between MSS and FSS is blurring as satellite technology develops, and more co-primary FSS/MSS spectrum is needed to meet current and future demand.

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COMMENTS OF TELEDESIC CORPORATION

Teledesic Corporation ("Teledesic"), by its attorneys and pursuant to Section 1.415 of the rules and regulations of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. § 1.415 (1993), hereby submits its Comments in the above-captioned proceeding.^{1/} Pursuant to its application filed with

^{1/} By an order dated June 1, 1994, the FCC on its own motion extended the comment deadline in this proceeding to July 15, 1994, and the reply comment deadline to August 5, 1994.

Preparation for International Telecommunication Union World

(continued...)

the Commission on March 21, 1994, Teledesic proposes to construct, launch and operate an international non-geostationary satellite system in the fixed satellite service ("FSS").

Application of Teledesic Corporation, File No. 22-DSS-P/LA-94 (March 21, 1994), as amended. During the 1995 World Radiocommunication Conference ("WRC-95") as well as subsequent conferences, the International Telecommunication Union ("ITU") will consider issues of direct concern to Teledesic, a proposed provider of international service using a non-geostationary satellite system in the 30/20 GHz band, or Ka band.

As described more fully below, Teledesic urges the Commission and the United States to advocate the following positions at WRC-95: (1) The United States should support the modification or elimination of International Radio Regulation No. 2613 ("Rad. Reg. 2613") so that any non-geostationary satellite system operating in the FSS has equal priority with geostationary satellite systems; (2) The United States should act to preserve sufficient Ka band spectrum for non-geostationary FSS systems; (3) The United States should support the consideration and adoption of Recommendation 719 (WRC-92) at the 1997 World Radiocommunication Conference ("WRC-97") because it addresses matters critical to the future success of non-geostationary and geostationary satellite networks utilizing multiple bands and

1/ (...continued)

Radiocommunication Conferences, IC Docket No. 94-31, DA 94-566 (released June 2, 1994).

multiple services. See ITU, Final Acts of WRC-92, Malaga-Torremolinos, Recommendation No. 719.

I. INTRODUCTION

In anticipation of WRC-95, the Commission has solicited comments on issues relevant not only to the agenda of WRC-95 but also to the agendas of future conferences in 1997 and 1999. Preparation for International Telecommunication Union World Radiocommunication Conferences, IC Docket No. 94-31, FCC 94-96 (released May 5, 1994) ("Notice of Inquiry"). The positions advanced by Teledesic herein will create an impartial regulatory environment for all types of satellite systems, whether they are geostationary or non-geostationary systems and whether they provide mobile satellite service ("MSS") or FSS. By thus allowing U.S. satellite operators to compete and succeed on the strengths of their respective technologies, Teledesic's proposals also facilitate the efficient introduction of worldwide satellite services and universal access to advanced telecommunications services, both of which are stated FCC objectives. Notice of Inquiry, at ¶ 1. In fact, the provision of affordable, yet advanced, interactive broadband information services to previously unserved or underserved areas of the world is the foundation of Teledesic's proposed satellite system. In these comments, Teledesic urges the Commission to promote international regulations and policies that allow non-geostationary satellite operators the opportunity to compete effectively in the world telecommunications marketplace.

II. RADIO REGULATION 2613 SHOULD BE REVISED OR ELIMINATED SO THAT NON-GEOSTATIONARY SATELLITE SYSTEMS RECEIVE EQUAL PRIORITY WITH GEOSTATIONARY SATELLITE SYSTEMS.

At WRC-95, the United States should support revising or eliminating Rad. Reg. 2613 so that non-geostationary satellite systems providing FSS receive equal priority with geostationary satellite systems. Rad. Reg. 2613 requires non-geostationary space stations to cease or reduce to a negligible level their transmissions in order to protect geostationary satellites.^{2/} The Commission has acknowledged that Rad. Reg. 2613 is inequitable to non-geostationary satellite systems and has discussed the need to modify the regulation in the context of the use of FSS spectrum by non-geostationary MSS satellite systems for their feeder links. Notice of Inquiry, at ¶ 24. An interpretation designed to ease this inequity is proposed for consideration at WRC-95, but it fails to protect non-geostationary satellite systems. Thus, Teledesic supports the elimination or modification of Rad. Reg. 2613 in favor of coordination procedures that are neutral with respect to the type

2/ Rad. Reg. 2613 states:

Non-geostationary space stations shall cease or reduce to a negligible level their emissions, and their associated earth stations shall not transmit to them, whenever there is insufficient angular separation between non-geostationary satellites and geostationary satellites, and whenever there is unacceptable interference to geostationary-satellite space systems in the fixed-satellite service operating in accordance with these Regulations.

ITU, Radio Regulations (Geneva 1990). "Unacceptable interference" is defined as the interference level that is "fixed by agreement between the administrations concerned." Id.

of satellite systems involved and that remove preferential treatment of geostationary satellite systems. Because Rad. Reg. 2613 applies to any non-geostationary space station in the FSS and there is no technical reason to differentiate between MSS feeder links and other FSS uses, revisions to Rad. Reg. 2613 should encompass all FSS uses.

The ITU has stated that Rad. Reg. 2613 is "necessary to safeguard geostationary-satellite networks in the fixed-satellite service from interference which might be caused by non-geostationary satellite networks." ITU, Final Acts of WRC-92, Malaga-Torremolinos, Resolution No. 46. However, the ITU has failed to explain why geostationary satellite systems should be protected at the expense of non-geostationary satellite systems in all circumstances, even where the geostationary satellite is deployed after the non-geostationary system. Rather, the ITU in WRC-92 acknowledged that Rad. Reg. 2613 "if more widely applied" would prejudice the development of non-geostationary systems in other space radiocommunication services. Id. Proposed revisions to Rad. Reg. 2613 to date continue to prejudice non-geostationary systems for the following reasons.

First, an interpretation of Rad. Reg. 2613 was advanced during the Commission's MSS Above 1 GHz proceeding and submitted as Working Paper 4/A of ITU-R Study Group 4.3/ See Notice of

3/ Under this interpretation, Rad. Reg. 2613 shall not be invoked to require an operating non-geostationary satellite system to cease or reduce transmissions unless the following three conditions are met: (1) the administrations involved must
(continued...)

Inquiry, at ¶ 24. This interpretation fails to negate the basic bias against non-geostationary satellite systems explicit in Rad. Reg. 2613, which is written to require only non-geostationary satellite systems to reduce or cease their emissions where unacceptable interference between non-geostationary and geostationary satellite systems exists. To ensure that regulations remain technology neutral, Rad. Reg. 2613 also should require that geostationary satellite systems reduce or cease transmissions to protect previously coordinated non-geostationary satellite systems when unacceptable interference between the systems occurs. For these reasons, Teledesic does not support the above Working Paper 4/A interpretation of Rad. Reg. 2613.

Second, Resolution 46 (WRC-92) proposed interim procedures to facilitate coordination involving non-geostationary satellite systems in certain frequency bands, not including the Ka band. These interim procedures emphasize coordination but do not override the basic priority afforded to geostationary systems by Rad. Reg. 2613. Without basic priority protection, an

3/ (...continued)
engage in bilateral or multilateral discussions and reach agreement as to a level of accepted interference; (2) after the systems are in operation, the non-geostationary system must exceed the agreed-upon level of interference; and (3) the interference in excess of the agreed-upon level must be caused by the failure of the non-geostationary system to maintain sufficient angular separation between the satellites of the two systems. Amendment of Section 2.106 of the Commission's Rules to Allocate the 1610 - 1626.5 MHz and the 2483.5 - 2500 MHz Bands for use by the Mobile-Satellite Service, Including Non-geostationary Satellites, 9 FCC Rcd 536, 541-42 (1994) ("Big LEO Order").

operational non-geostationary satellite system remains vulnerable to the cessation requirements of Rad. Reg. 2613.

Third, a slightly modified Resolution 46 (WRC-95) is proposed for consideration at WRC-95. Report by Voluntary Group of Experts, IC Docket No. 94-31, at 104-06 (May 5, 1994). The modified Resolution 46 (WRC-95) contains different coordination procedures but still does not address explicitly the issue of priority in the event of an impasse or in the event that an operational non-geostationary satellite system precedes a geostationary system. Teledesic cannot support either interpretation.

Teledesic supports the evolving concept of giving balanced, equitable treatment to both geostationary and non-geostationary FSS operations. However, any such concept should include not only non-geostationary MSS feeder links but also all non-geostationary FSS systems. For example, ITU-R Task Group 4/5 has developed a proposal in which FSS bands are categorized into three separate groups.^{4/} See ITU-R Task Group 4/5 Report, Doc. 4-5/TEMP/16. This proposal recognizes the need to treat geostationary and non-geostationary satellite operations equitably, but it limits its discussion to MSS feeder links and

^{4/} In the first group, geostationary FSS has priority. This group would encompass bands such as the C and Ku bands, which already are heavily used by existing geostationary FSS systems. In the second group of bands, non-geostationary MSS feeder links have priority. In the third group, neither type of satellite system has priority, and equitable coordination between geostationary and non-geostationary satellite operations would be required.

fails to include all FSS non-geostationary satellite operations within its terms. Under the Task Group 4/5 approach, it is conceivable that Rad. Reg. 2613 would be eliminated or significantly modified to remove any preferential treatment of geostationary satellite operations, at least where unacceptable interference occurs between them and MSS feeder links.

However, it is critical that any changes to Rad. Reg. 2613 include all non-geostationary FSS uses. The Commission's considerations of fairness underlying its proposed modifications of Rad. Reg. 2613 with respect to MSS feeder links are equally valid with respect to non-geostationary satellite systems in the FSS. In either circumstance, non-geostationary satellite systems are prejudiced without a technology-based or policy-based justification. From a policy perspective, regulations must be technology neutral so that the marketplace rather than regulators determine the feasibility of satellite technologies. From an interference perspective, the feeder links of non-geostationary MSS systems are technically indistinguishable from the uplinks of non-geostationary FSS systems because signals, modulation types, power flux densities and other technical characteristics related to interference are the same. Thus, any modifications to Rad. Reg. 2613 must apply equally to all non-geostationary FSS systems.

III. THE UNITED STATES SHOULD ACT TO PRESERVE SUFFICIENT KA BAND SPECTRUM FOR FSS NON-GEOSTATIONARY SATELLITE SYSTEMS.

The agenda for WRC-95 includes consideration of future demand for spectrum to accommodate the feeder links of non-geostationary satellite systems providing MSS. The agenda also includes discussion of whether additional spectrum should be allocated for MSS feeder links to meet this demand. See ITU, Final Acts of the WRC-93, Geneva, Resolution No. COM 4/1, at 2.1(c) and 3.0 (d). The inclusion of these agenda items reflects the ITU's concern that existing FSS spectrum allocations may be inadequate to accommodate future MSS feeder link requirements due to increasing demand for spectrum to launch new MSS operations. Notice of Inquiry, at ¶ 22.

Teledesic submits that the ITU should not consider the 30/20 GHz band as the solution to the potential shortage of spectrum for MSS feeder links.^{5/} For two reasons, the band should retain its present international primary FSS allocation, which

^{5/} In a recent rulemaking, the FCC has proposed frequencies in the 30/20 GHz band for feeder link use by certain MSS applicants for authority to operate non-geostationary satellite systems (the "MSS Above 1 GHz" applicants). Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610 - 1626.5 / 2483.5 - 2500 MHz Frequency Bands, 9 FCC Rcd 1094, 1131 (1994) ("Big LEO Notice"); see also Notice of Inquiry, at ¶ 23. The FCC will initiate a negotiated rulemaking later this month to consider, among other things, the possible location of the feeder links of the five MSS Above 1 GHz applicants in the Ka band. Big LEO Notice, 9 FCC Rcd at 1131.

broadly encompasses all FSS uses including MSS feeder links.^{6/}
47 C.F.R. §§ 2.106, 25.201 (1993).

First, extensive use of Ka band spectrum for MSS feeder links would be wasteful and inefficient because paired FSS downlink allocations would become unusable.^{7/} FSS satellite systems employ paired uplink and downlink spectrum allocations. According to both the international Table of Frequency Allocations, see Final Acts of WRC-92, and United States Table of Frequency Allocations, see 47 C.F.R. § 2.106 (1993), the 17.7 - 20.2 GHz band is allocated for FSS downlinks and the 27.5 - 30.0

^{6/} Teledesic does not oppose the location of feeder links in the Ka band for the two MSS Above 1 GHz applicants that originally requested such assignments. Specifically, TRW, Inc. ("TRW") applied for authority to use a portion of the 29.5 - 30.0 GHz band, see Comments of TRW, Inc., CC Docket No. 92-297 at 1 (March 21, 1994), and Motorola Satellite Communications, Inc. ("Motorola") applied for authority to operate feeder links in the 29.1 - 29.3 GHz band. See Comments of Motorola Satellite Communications, Inc., CC Docket No. 92-297 at 3 (March 21, 1994).

^{7/} Underpinning this issue is the fact that co-frequency interference between MSS feeder links and certain FSS uses is a significant concern in the Ka band, so that some FSS uplinks cannot share spectrum with MSS feeder links. During the course of the FCC's MSS Above 1 GHz proceeding, technical studies showed the potential for interference from non-geostationary feeder link Earth stations into the satellite receivers of geostationary FSS systems. See Report of the MSS Above 1 GHz Rulemaking Committee, CC Docket No. 92-166, Report of Drafting Group 2C, at 32 (April 6, 1993). Additionally, studies reported by ITU-R Task Group 4/5 showed interference levels far in excess of coordination trigger levels when ten- and twelve-satellite non-geostationary MSS systems used the same frequencies for feeder links. Specifically, the studies showed a more than 30 percent increase in noise temperature for more than 0.2 percent of the time. This interference level exceeds the 6 percent single entry interference criterion used to trigger coordination requirements. Finally, Teledesic's own studies have shown preliminarily that it is unable to share frequencies with non-geostationary MSS feeder links because of unacceptably high interference levels.

GHz band is allocated for FSS uplinks. Each of these allocations involves the same amount of spectrum. This creates the balance between uplink and downlink allocations that is necessary for FSS operations. Because each of the FSS systems requires equal amounts of spectrum for uplinks and downlinks, the unavailability of some uplink spectrum due to MSS/FSS co-channel interference would render unusable a corresponding part of the downlink spectrum in the 17.7 - 20.2 GHz band. The downlink allocations needlessly would be wasted.

Second, the Ka band lacks sufficient spectrum to accommodate its extensive use for MSS feeder links. In the United States, competition for Ka band spectrum has increased significantly in the last year. The satellite applications of Teledesic and Hughes Communications Galaxy, Inc. ("Hughes")^{8/} for FSS systems reflect substantially increased demand for Ka band spectrum by commercial users. Presently there is sufficient spectrum to enable Teledesic, TRW, Motorola, Hughes and Norris Satellite Communications, Inc. ("Norris")^{9/} to operate in the Ka band on a non-interference basis. However, even with overlapping spectrum use, the systems proposed by Teledesic, Hughes, Norris, TRW and Motorola require 2.2 GHz of the 2.5 GHz at the Ka

^{8/} Application of Hughes Communications Galaxy, Inc., File Nos. 3 DSS-P/LA-95, 4 DSS-P/LA-94 (Dec. 3, 1993).

^{9/} Application of Norris Satellite Communications, Inc., File Nos. 54-DSS-P/LA-90, 55-DSS-P-90 (July 16, 1990).

band.^{10/} Because MSS feeder links and certain FSS systems cannot share spectrum, there is insufficient Ka band spectrum for both additional MSS feeder links and satellite uses already proposed or authorized in the band. Consequently, if a portion of the Ka band spectrum is used by non-geostationary satellite systems in addition to TRW and Motorola for their MSS feeder links, then the operations of the Teledesic, Hughes, and Norris FSS systems would be compromised.

The potential shortage of Ka band spectrum is even more acute if it is accepted that MSS feeder links require more spectrum when located in the Ka band as opposed to lower frequencies. Based on comments filed by the five MSS Above 1 GHz applicants with the FCC, between 900 and 1100 MHz of spectrum in each direction may be required for their feeder links in the Ka band. See, e.g., Application for Membership and Comments of Loral Qualcomm Satellite Services, Inc., CC Docket No. 92-297, at 6 (March 21, 1994). If the bases for these estimates are accurate, then it is likely that the feeder link requests of the

^{10/} Teledesic, Hughes, and Norris each has proposed wideband FSS systems requiring 1200 MHz, 1000 MHz, and 700 MHz, respectively, in each direction in the 30/20 GHz band. Motorola and TRW each has proposed to use Ka band spectrum for MSS feeder links, in the amounts of 200 MHz and 100 MHz, respectively. The Hughes and Norris systems are geostationary with limited geographic coverage. This allows frequency sharing between Hughes and Norris and frequency reuse by other satellite systems. The proposed Teledesic system operates from non-geostationary orbits and provides world-wide coverage. These two factors combine to eliminate the interference-mitigating approaches of geographic isolation of uplink transmitters and avoidance of co-coverage areas. Thus, the current authorized and proposed Ka band uses require 2.2 GHz of the available 2.5 GHz.

five MSS Above 1 GHz applicants will restrict the use of the Ka band by existing and future satellite applicants. For example, the combined spectrum requirements for the uplinks of Teledesic, Hughes and Norris combined with the five MSS Above 1 GHz applicants' feeder links exceed the Ka band's 2.5 GHz capacity.

IV. THE UNITED STATES SHOULD SUPPORT THE CONSIDERATION OF RECOMMENDATION 719 (WRC-92) AT WRC-97 BECAUSE IT INCLUDES ISSUES CRITICAL TO THE FUTURE SUCCESS OF NON-GEOSTATIONARY AND GEOSTATIONARY SATELLITE NETWORKS UTILIZING MULTIPLE BANDS AND MULTIPLE SERVICES.

Teledesic urges the United States and the Commission to advocate the inclusion of Recommendation 719 (WRC-92) on the agenda for WRC-97 because it embraces a broad range of issues critical to the future success of non-geostationary satellite systems providing MSS or FSS. The Preliminary Agenda for WRC-97 contains Recommendation 715 (Orb-88), which recognized that geostationary satellite systems operating in multiple bands or providing multiple services may be subject to multiple procedures that are difficult to complete and recommended that administrations cooperate to overcome these difficulties. Notice of Inquiry, at ¶ 39. Recommendation 715 (ORB-88) consequently proposed review and simplification of the process for bringing into use multi-band and multi-service satellite networks. The proposed WRC-97 agenda, however, fails to include consideration of related Recommendation 719 (WRC-92). Id. at ¶ 39 n.46. Recommendation 719 (WRC-92) generally recognized that certain frequency bands, including portions of the Ka band, are allocated to both MSS and FSS and that there is an urgent need to study the

technical characteristics of multi-service networks, including their compatibility with FSS systems.

In contrast to Recommendation 715 (Orb-88), Recommendation 719 (WRC-92) raises issues critical to the future success of the satellite industry, such as the need to include non-geostationary satellite systems within any technical studies or deliberations regarding the compatibility of FSS and MSS systems, the need to adopt a single service definition for FSS and MSS, and the need to allocate additional spectrum to MSS and FSS. Thus, the United States should advocate the consideration and adoption of Recommendation 719 (WRC-92) at WRC-97.

Unlike Recommendation 715 (Orb-88), the terms of Recommendation 719 (WRC-92) are not limited to geostationary satellite systems. For the following reasons, the ITU at WRC-97 should include non-geostationary as well as geostationary systems in its deliberations concerning simplified procedures for deploying multi-band and multi-service satellite networks. First, as evidenced by Teledesic's application and by the five MSS Above 1 GHz applications, the deployment of non-geostationary satellite systems is increasing. Thus, a failure to include consideration of non-geostationary satellite systems at WRC-97 inefficiently postpones the inevitable need to address such systems' operations. Second, these non-geostationary systems employ new satellite technologies developed in the United States and can promote the competitive position of the United States in the global marketplace as well as provide high-technology jobs

domestically. Third, non-geostationary satellite systems are critical to achieving a "seamless, global communications network" because they cost-effectively deliver advanced telecommunications to a larger area than geostationary satellite systems. Notice of Inquiry, at ¶ 1. Non-geostationary systems provide universal access to interactive broadband capabilities that support distance learning, expanded health care, disaster relief, economic development, and other public services to remote areas of the world.

Recommendation 719 (WRC-92) also should be included in the agenda for WRC-97 because it introduces the consideration of a single service definition encompassing both MSS and FSS applications. As satellite technology continues to develop, the lines between MSS and FSS service increasingly will blur, and the need for a "general satellite service" definition encompassing both services will increase.^{11/} A general service definition is necessary because the marketplace and available technology, rather than regulatory constrictions, should define services offered to the public. A general definition also is consistent with the recommendation of the Voluntary Group of Experts to

^{11/} Norris has requested the Commission to reallocate the 19.7 - 20.2 GHz and 29.5 - 30.0 GHz bands to a domestic general satellite service, which would combine FSS, MSS and broadcast-satellite services ("BSS"). Norris Satellite Communications, Inc., 7 FCC Rcd 4289, 4289 n.1 (1992). The FCC responded by upgrading the secondary MSS allocation in these bands to co-primary status with FSS. Amendment of Section 2.106 of the Commission's Rules to Upgrade to Primary Status the Secondary Mobile-Satellite Service Allocation at 19.7 - 20.2 GHz and 29.5 - 30.0 GHz, ET Docket No. 92-191, FCC 94-154 (released July 13, 1994).

designate spectrum allocations to the most broadly defined services. Notice of Inquiry, at ¶ 9.

Most importantly, consideration of Recommendation 719 (WRC-92) at WRC-97 is imperative because it recommends that the ITU consider allocating additional, unspecified spectrum to accommodate the growth of FSS and MSS services. In WRC-92, only 500 MHz of spectrum at the 29.5 - 30.0 GHz and 19.7 - 20.2 GHz bands was allocated to co-primary use by MSS and FSS in Region 2. Since that time, however, Teledesic has requested authorization to utilize the 28.6 - 29.0 GHz, 18.8 - 19.2 GHz, 27.6 - 28.4 GHz, and 17.8 - 18.6 GHz bands for FSS. Hughes has requested authorization to use the 29.0 - 30.0 GHz band for FSS. TRW, Inc. has applied for spectrum in the 29.5 - 30.0 GHz band and Motorola has requested the 29.1 - 29.3 GHz band for use as feeder links for their non-geostationary satellite systems providing MSS. Norris is authorized to provide FSS in the 19.5 - 20.2 GHz and 29.3 - 30.0 GHz bands. Given the existing requirements identified by these systems, more spectrum is needed for domestic and international use by United States operators to ensure the continued growth of the satellite industry in the United States and the world. Thus, the United States aggressively should pursue the allocation of more co-primary MSS/FSS spectrum, and inclusion of Recommendation 719 (WRC-92) on the agenda for WRC-97 will initiate this discussion.

V. CONCLUSION

For the foregoing reasons, Teledesic respectfully requests that the Commission and the United States support elimination or modification of Rad. Reg. 2613 so that non-geostationary satellite systems enjoy equal priority with geostationary satellite systems. Teledesic also requests that the Commission and the United States ensure that sufficient Ka band spectrum is preserved for non-geostationary FSS use. Finally, Teledesic urges the Commission and the United States to support the inclusion of Recommendation 719 (WRC-92) on the agenda for WRC-97 because it includes within its scope non-geostationary satellite systems, adoption of a general service definition and the allocation of additional MSS/FSS spectrum.

Respectfully submitted,

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